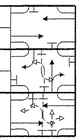
PHASING DIAGRAM

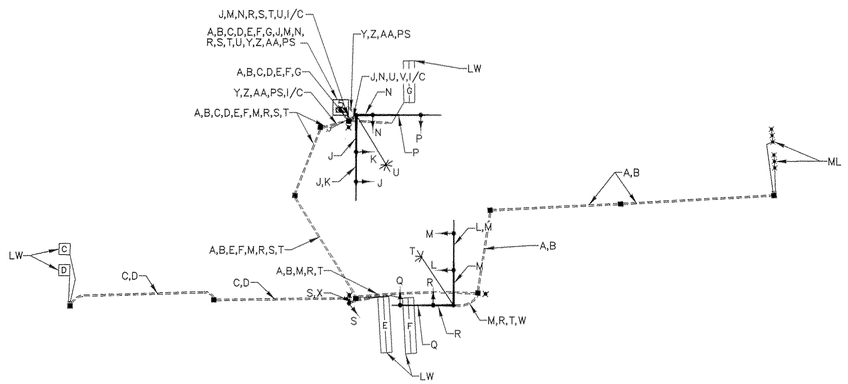
	1	2	3	4	5	6	7	8	9
	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y G)	(R Y C)	(R Y G)	(R Y G)
PHASE 2+6	G	G	G	G	R	R	R	R	R
2+6 CHANGE	Y	Y	Y	Y	R	R	R	R	R
PHASE 4+8	R	R	R	R	G	G	G	G	G
4+8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y
FLASHING OPERATION	FL Y	FL Y	FL Y	FL Y	FL R	FL R	FL R	FL R	FL R



WIRING LEGEND

A – MICRO–LOOP PROBE LEAD–IN
B – MICRO–LOOP PROBE LEAD–IN
C – 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
D – 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
E – 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
F – 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
G – 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
J – 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
K – 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
L – 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
M – 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
N – 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
P – 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
Q – 5 CONDCUTOR CABLE (NO. 14 A.W.G.)
R – 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
S – 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
T – 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
U – 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
V – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
W – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
X – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
Y – 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
Z – 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
AA – 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
PS – PROPOSED ELECTRICAL SERVICE
✕ – 3/4"x10' GROUND ROD
LW – LOOP WIRE
ML – MICRO–LOOP PROBE
I/C – INTERCONNECT WIRE

WIRING DIAGRAM



PROJECT DESCRIPTION

I. GENERAL

THE WORK TO BE PERFORMED INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT MD 150 (EASTERN BOULEVARD) AND EASTERN AVENUE IN ESSEX, MARYLAND. IT IS ASSUMED THAT MD 150 (EASTERN BOULEVARD) RUNS IN AN EAST–WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR (4) PHASE FULLY TRAFFIC ACTUATED MODE. EASTBOUND AND WESTBOUND MD 150 (EASTERN BOULEVARD) WILL OPERATE CONCURRENTLY AND NORTHBOUND AND SOUTHBOUND EASTERN AVENUE WILL OPERATE CONCURRENTLY.

A NEW EIGHT PHASE FULLY ACTUATED CONTROLLER WITH TELEMETRY MODULE HOUSED IN A GROUND MOUNTED CABINET WILL BE INSTALLED.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA	SP	BASE MOUNTED LOCAL CABINET (SIZE 5) WITH DETECTION EQUIPMENT WITH 8 PHASE ASC II CONTROLLER WITH TELEMETRY AND OPTICOM PRE–EMPTION MODULE
55	SF	SP	FLAT SHEET ALUMINUM SIGN–YELLOW, ORANGE OR SILVER TO CONSIST OF–
			1 EACH R3–3(2) "NO LEFT OR U TURN" SIGN (30"x30") MAST ARM MOUNTED
			1 EACH R3–1 "NO RIGHT TURN" SIGN (30"x30") MAST ARM MOUNTED
			1 EACH R3–5(L) "LANE USE CONTROL–LEFT ONLY" SIGN (30"x36") MAST ARM MOUNTED
			1 EACH "LANE USE CONTROL–LEFT THRU RIGHT" SIGN (30"x36") MAST ARM MOUNTED
			1 EACH D–3(1) "ARROW–OLD EASTERN AVE" SIGN (VAR.x16") MAST ARM MOUNTED
			1 EACH D–3(1) "EASTERN BLVD" SIGN (VAR.x16") MAST ARM MOUNTED

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
10	CY		TEST PIT EXCAVATION
10	LF		SAWCUTTING
135	LF		24 INCH WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING TAPE
45	LF		REMOVE EXISTING PAVEMENT MARKINGS– ANY WIDTH
2	EA		FURNISH AND INSTALL MICRO–LOOP TRIPLE PROBE SET (1000')
1	LS		REMOVE AND DISPOSE OF EXISTING MATERIAL
1	LS		DELIVERY OF SALVAGED CONTROLLER AND CABINET
1	LS		REMOVAL AND SALVAGE OF CONTROLLER AND CABINET
8	EA		FURNISH AND INSTALL 12", 1 WAY 3 SECTION POLYCARBONATE SIGNAL HEAD– MAST ARM MOUNTED
1	EA		FURNISH AND INSTALL 12", 1 WAY 3 SECTION POLYCARBONATE SIGNAL HEAD– PEDESTAL POLE MOUNTED
10	CY		FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
40	LF		FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
25	LF		FURNISH AND INSTALL 2" (SCHEDULE 80) RIGID P.V.C. CONDUIT (RISER)
555	LF		FURNISH AND INSTALL 2" (SCHEDULE 80) RIGID P.V.C. CONDUIT (TRENCHED)
70	LF		FURNISH AND INSTALL 4" (SCHEDULE 80) RIGID P.V.C. CONDUIT (TRENCHED)
255	LF		FURNISH AND INSTALL 2" (SCHEDULE 80) RIGID P.V.C. CONDUIT (SLOTTED)
180	LF		FURNISH AND INSTALL 4" (SCHEDULE 80) RIGID P.V.C. CONDUIT (SLOTTED)
50	LF		FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON–METALLIC CONDUIT FOR DETECTOR SLEEVE
170	LF		FURNISH AND INSTALL ELECTRICAL CABLE– 1 CONDUCTOR NO. 4 (THHN/THWN)
11	EA		FURNISH AND INSTALL ELECTRICAL HANDHOLE
55	SF		INSTALL OVERHEAD SIGN
1	EA		FURNISH AND INSTALL 14' BREAKAWAY PEDESTAL POLE
2	EA		FURNISH AND INSTALL STEEL POLE WITH TWIN 50' MAST ARMS
615	LF		FURNISH AND INSTALL 12–PAIR COMMUNICATION CABLE–SELF SUPPORTING (OVERHEAD)
175	LF		FURNISH AND INSTALL 12–PAIR COMMUNICATION CABLE–JELLYFILLED (UNDERGROUND)
2	EA		FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
3	EA		FURNISH AND INSTALL GROUND ROD 3/4" DIAMETERx10' LENGTH
1	EA		FURNISH AND INSTALL CONTROL AND DISTIBUTION EQUIPMENT (120v/240v, 1 PHASE 3 WIRE SYSTEM)
1315	LF		FURNISH AND INSTALL ELECTRICAL CABLE 2 CONDUCTOR (ALUMINUM SHIELDED
285	LF		FURNISH AND INSTALL ELECTRICAL CABLE 5 CONDUCTOR (NO. 14 A.W.G.)
685	LF		FURNISH AND INSTALL ELECTRICAL CABLE 7 CONDUCTOR (NO. 14 A.W.G.)
390	LF		FURNISH AND INSTALL ELECTRICAL CABLE 2 CONDUCTOR (NO. 12 A.W.G.) TRAY CABLE
1110	LF		FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
440	LF		FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
2	EA		FURNISH AND INSTALL 20' LIGHTING ARM ON SIGNAL POLE
1	EA		INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET–BASE MOUNT

2-11-1999

A/E GROUP, INC.
ENGINEERS • PLANNERS
181 E. Main Street
Westminster, Maryland 21157
A/E Job No. 98–367–002

REVISIONS	APPROVALS
	CHIEF, DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY
⑧ REBUILD EXISTING TRAFFIC SIGNAL AND INTERCONNECT. 02/09/99	

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 150 (EASTERN BOULEVARD) AND EASTERN AVENUE

LOG MI. 03015003.93 — GENERAL INFORMATION SHEET — DATE: FEBRUARY 09,1999

DRAWN BY:	F.A.P. NO.	PLAN TS NO.:	SHEET NO.
CHECK BY: RAT 2-1-99	S.H.A. NO.	38648	31 OF 42
SCALE: 1"=20'	COUNTY BALTIMORE		